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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/775,979	02/10/2004	Linfang Zhu	226083	1294

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EXAMINER

FAISON GEE, VERONICA FAYE

ART UNIT	PAPER NUMBER
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1755

DATE MAILED: 12/14/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/775,979	Applicant(s) ZHU ET AL.	
	Examiner Veronica Faison-Gee	Art Unit 1755	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 September 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2,3,8,9,12-17 and 19-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2,3,8,9,12-17 and 19-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2, 3, 12, 15, 16, 19, 21, and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Loria et al (US Patent 5,443,628).

Loria et al teach a method and composition comprising a dispersion of synthetic pigment particles (abstract). The reference further teaches that the ink composition has the following properties a viscosity from about 1 to about 10 cps, an electrical resistivity from about 40 to 2,000 ohms-cm⁻¹, a sonic velocity from about 1,200 to about 1,700m/sec and a surface tension below 70 dynes/cm (col. 2 lines 24-28). The reference teaches that when printing on nonporous substrates an organic solvent such as ketones, alcohols, and esters may be used (col. 4 lines 15-18). Any film-forming resin may also be present in the composition including rosin esters, polyvinyl esters, vinyl chloride/vinyl ether or vinyl acetate copolymers (col. 2 lines 20-35). Other components that may be present in the composition include humectants in the amount of about 2 to 4 percent by weight, resins such as cellulose acetate to boost the viscosity, and defoamer may be present in the amount from about 0.05 to 0.10 percent by weight (col. 4 line 41-col. 5 line 35).

Loria et al fails to specifically exemplify the use of rosin ester resin as claimed by applicant. Therefore, it would have been obvious to one of ordinary skill in the art to use the rosin ester as claimed by applicant as Loria et al also discloses the use of rosin ester resin but shows no example incorporating them.

Claims 2, 3, 8, 9, 12-17, and 19-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zhu et al (US 2004/0110868).

Zhu et al teach an opaque ink jet ink comprising one or more organic solvents, one or more white pigments, one or more conductive agents and one or more binder resins (abstract and 0014). The reference further teaches ink properties such as viscosity from about 1.6 to about 7.0 cps, an electrical resistivity from about 50 to 2,000 ohms-cm, a sonic velocity from about 1,100 to about 1,700 m/sec (0015). The preferred solvent ketones including methyl ethyl ketone, lower alcohols, amides and mixtures that may be present in the amount of up to about 95 percent by weight (0017-0018). The ink composition may include one or more optional colorant in an amount sufficient to add a color, which may be a dye and/or pigment (0022). Suitable binders that may be present in the composition include rosin ester resin, cellulose acetate (0028) that may be present in the amount of 5 to about 45 percent by weight (0036) and co-resin such as vinyl resin (0037). Additional components may be present in the composition include any suitable surfactant, dispersing agent, plasticizer, humectant and/or defoamer (0040). The reference teaches that the ink composition may be printed on nonporous substrates such as glass, plastic and rubber surfaces (0012). The reference broadly discloses rosin ester resins and plastic substrate, Therefore it would have been obvious

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to one of ordinary skill in the art would include any rosin ester and plastic substrate
absence tangible evidence to the contrary.

Zhu et al fails to specifically exemplify the use of rosin ester resin as claimed by applicant. Therefore, it would have been obvious to one of ordinary skill in the art to use the rosin ester as claimed by applicant as Zhu et al also discloses the use of rosin ester resin but shows no example incorporating them.

Response to Arguments

Applicant's arguments with respect to claims 2, 3, 8, 9, 12-17, and 19-30 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Veronica Faison-Gee whose telephone number is 571-272-1366. The examiner can normally be reached on Monday-Thursday and alternate Fridays 8 am to 5 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jerry Lorengo can be reached on 571-272-1233. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

VFG
12-8-06


DAVID SAMPLE
PRIMARY EXAMINER